ABSTRACT OF THE DISCLOSURE

Systems and methods are provided for compressing and decompressing session initiation protocol (SIP) messages. A serializer and parser compress and decode SIP data structures according to a tokenized binary protocol. The compression/decompression protocol uses tokens that represent message elements of the internal data structures that define SIP messages. Tokens may be assigned to message elements based on various design requirements. Some tokens provide sufficient generality to encode any legal SIP message, while others are highly optimized to match the elements found in most common SIP messages. For those elements requiring specific strings, three dictionaries are defined. Two of the dictionaries are static and are never transmitted; the third dictionary is dynamic and contains strings found only in the specific message. Because the message dictionary is transmitted with each message, and contributes to the size of the transmitted message, the message element tokens are designed to reduce the size of the message dictionary to the greatest degree possible. The compression of SIP messages in this manner is stateless in that it does not require knowledge of the characteristics of previous messages.

W:\15814\3\BLM0000001399V001.doc

Docket No. 15814.3